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## AMENDMENTS TO THE CLAIMS

- (Currently Amended) A nipple aspirate fluid aspiration device, comprising:

   an adjustable support, defining a concavity, the support comprising a plurality of

   petals, movable throughout an adjustment range;
  - at least one three inflatable bladders within the concavity; and
  - a vacuum source in communication with the concavity;
  - a heat source; and
  - a fluid circulation pathway for circulating a fluid through the bladders.
- 2. (Canceled)
- 3. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 1, wherein each petal carries an inflatable bladder.
  - 4. (Cancelled)
- 5. (Currently amended) A nipple aspirate fluid aspiration device as in Claim 1[[4]], wherein the heat source is in thermally conductive contact with the bladder.
  - 6. (Cancelled)
- 7. (Currently amended) A nipple aspirate fluid aspiration device as in Claim 1[[2]], wherein the heat source is in thermally conductive contact with the fluid so that the fluid heats the bladder.
  - 8. (Cancelled)
- 9. (Original) A nipple aspirate fluid aspiration device as in Claim 1, further comprising a control for inflating and deflating the bladder in accordance with a predetermined program.
- 10. (Original) A nipple aspirate fluid aspiration device as in Claim 9 wherein the predetermined program comprises alternating inflation and deflation cycles.
- 11. (Original) A nipple aspirate fluid aspiration device as in Claim 10 wherein the predetermined program inflates the bladder within the range of from about 2 to about 40 cycles per minute.
- 12. (Original) A nipple aspirate fluid aspiration device as in Claim 11 wherein the predetermined program inflates the bladder within the range of from about 3 to about 12 cycles per minute.

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- 13. (Original) A nipple aspirate fluid aspiration device as in Claim 10 wherein the predetermined program maintains the bladder inflated within the range of from about 4 to about 8 seconds per cycle.
- 14. (Original) A nipple aspirate fluid aspiration device as in Claim 1, wherein the bladder is inflatable from a reduced profile along an axis transverse to the support and an inflated profile along the axis.
- 15. (Original) A nipple aspirate fluid aspiration device as in Claim 14, wherein the bladder has a maximum thickness in the inflated profile along the axis within the range of from about .2 inches to about 2.0 inches.
- 16. (Currently amended) A device for obtaining an intraductal fluid sample from a non lactating breast, comprising:

a frame;

at least three supports on the frame, having first sides for facing in the direction of a patient when in use[[;]], the supports moveable throughout an adjustment range;

- a moveable wall positioned in between the supports and the patient when in use;
- a disposable patient interface positioned between the movable wall and the patient, for contacting the patient when in use; and

a control, for controlling the adjustment.

- 17. (Canceled)
- 18. (Cancelled)
- 19. (Cancelled)
- 20. (Currently amended) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 1619, wherein the control comprises a rotatable ring.
- 21. (Currently amended) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 1618, wherein each support has a proximal end in the direction of the frame, and a distal end in the direction of the patient, and the distal ends form an annular distal limit which is moveable between a first, small diameter and a second, large diameter at the limits of the adjustment range.

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- 22. (Original) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 21, wherein the first diameter is within the range of from about 2.5 inches to about 4.5 inches.
- 23. (Original) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 21, wherein the second diameter is within the range of from about 3.5 inches to about 6.5 inches.
- 24. (Previously presented) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 16, wherein the movable wall comprises a wall on an inflatable bladder.
- 25. (Currently amended) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 24, <u>further</u> comprising an inflatable bladder carried by each of the supports.
- 26. (Original) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 16, wherein the disposable patient interface comprises a flexible membrane.
- 27. (Original) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 26, wherein the flexible membrane comprises a tubular body having a proximal end with a first diameter and a distal end with a second, larger diameter.
- 28. (Original) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 27, further comprising a releasable connector on the proximal end.
- 29. (Original) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 26, wherein the flexible membrane comprises a low durometer thermoplastic elastomer.
- 30. (Original) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 16, further comprising a heat source in thermal communication with the movable wall.
  - 31. (Canceled)
  - 32. (Canceled).
  - (Canceled).
- 34. (Currently amended) A device for obtaining an intraductal fluid sample from a non lactating breast, comprising:

a frame;

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at least one-three supports on the frame, having a-first sides for facing in the direction of a patient when in use;

- a moveable wall positioned in between the support and the patient when in use; and
- a disposable patient interface positioned between the movable wall and the patient, for contacting the patient when in use, the patient interface comprising a flexible membrane having a tubular body with a proximal end having a first diameter and a second end having a second, larger diameter, and a releasable connector on the proximal end;

wherein the movable wall comprises a wall on an inflatable bladder.

- 35. (Cancelled)
- 36. (Currently amended) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 3534, wherein the supports are moveable throughout an adjustment range.
- 37. (Previously presented) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 36, further comprising a control, for controlling the adjustment.
- 38. (Previously presented) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 37, wherein the control comprises a rotatable ring.
- 39. (Previously presented) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 36, wherein each support has a proximal end in the direction of the frame, and a distal end in the direction of the patient, and the distal ends form an annular distal limit which is moveable between a first, small diameter and a second, large diameter at the limits of the adjustment range.
- 40. (Previously presented) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 39, wherein the first diameter is within the range of from about 2.5 inches to about 4.5 inches.
- 41. (Previously presented) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 39, wherein the second diameter is within the range of from about 3.5 inches to about 6.5 inches.
  - 42. (Cancelled)

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- 43. (Currently amended) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 4234, comprising an inflatable bladder carried by each of the supports.
- 44. (Previously presented) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 34, wherein the flexible membrane comprises a low durometer thermoplastic elastomer.
- 45. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 1, further comprising:

a control unit;

- a patient interface unit, carrying the adjustable support; and
- a control line extending between the control unit and the patient interface unit.
- 46. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 45, further comprising a closed fluid circulation loop, having a reservoir removably carried by the control unit in communication with the bladder carried by the patient interface unit.
- 47. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 46, wherein the bladder comprises at least 3 inflatable lobes.
- 48. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 47, comprising at least 6 inflatable lobes.
  - 49. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 46, further comprising a heat exchange fluid contained within the closed loop.
  - 50. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 47, wherein each lobe has an inflated width of no more than about 3 inches and an inflated length of no more than about 4 inches.
  - 51. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 50, wherein each lobe has an inflated width of no more than about 2 inches and an inflated length of no more than about 3 inches.
  - 52. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 1, wherein the bladder has an inflated thickness of no more than about 1 inch.
  - 53. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 52, wherein the bladder has an inflated thickness of no more than about 0.5 inches.

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- 54. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 45, further comprising a heat source in the control unit.
- 55. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 46, further comprising a pump in the control unit.
- 56. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 55, wherein the fluid circulation loop is positioned such that the pump causes fluid circulation through the loop.
- 57. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 1, further comprising a disposable patient interface carried by the adjustable support, for contacting the patient.
- 58. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 57, wherein the disposable patient interface comprises a flexible polymeric membrane.
- 59. (Previously presented) A nipple aspirate fluid aspiration device as in Claim 58, wherein the disposable patient interface further comprises a rigid support for maintaining patency under vacuum, attached to the flexible polymeric membrane.
- 60. (Currently amended) A nipple aspirate fluid aspiration device as in Claim [[1]]59, wherein the <u>rigid support proximal eap</u>-comprises at least a first retention structure for releasable connection with a complementary second retention structure on a handpiece.
- 61. (Currently amended) A nipple aspirate fluid aspiration device as in Claim [[1]]60, wherein the <u>first</u> retention structure comprises a recess on the <u>rigid support</u> proximal cap.
- 62. (Currently amended) A nipple aspirate fluid aspiration device as in Claim [[1]]60, wherein the <u>first</u> retention structure comprises a projection on the <u>rigid support</u> proximal cap.
- 63. (Currently amended) A nipple aspirate fluid aspiration device as in Claim 1, further comprising a central processing unit for controlling the inflatable bladders.
- 64. (Currently amended) A nipple aspirate fluid aspiration device as in Claim 45, further comprising a central processing unit for controlling the inflatable bladders.
  - 65. (New) A nipple aspirate fluid aspiration device, comprising:

    an adjustable support, defining a concavity, the support comprising a plurality of petals, movable throughout an adjustment range;
    - at least one inflatable bladder within the concavity;
    - a vacuum source in communication with the concavity, and

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a control for inflating and deflating the bladder in accordance with a predetermined program;

wherein the predetermined program comprises alternating inflation and deflation cycles;

wherein the predetermined program inflates the bladder within the range of from about 3 to about 12 cycles per minute.

- 66. (New) A nipple aspirate fluid aspiration device as in Claim 65, wherein each petal carries an inflatable bladder.
- 67. (New) A nipple aspirate fluid aspiration device as in Claim 65, further comprising a heat source.
- 68. (New) A nipple aspirate fluid aspiration device as in Claim 67, wherein the heat source is in thermally conductive contact with the bladder.
- 69. (New) A nipple aspirate fluid aspiration device as in Claim 67, further comprising a fluid circulation pathway for circulating a fluid through the bladder.
- 70. (New) A nipple aspirate fluid aspiration device as in Claim 69, wherein the heat source is in thermally conductive contact with the fluid so that the fluid heats the bladder.
- 71. (New) A nipple aspirate fluid aspiration device as in Claim 69, further comprising at least three inflatable bladders, in fluid communication with the circulation pathway.
- 72. (New) A nipple aspirate fluid aspiration device as in Claim 65 wherein the predetermined program maintains the bladder inflated within the range of from about 4 to about 8 seconds per cycle.
- 73. (New) A nipple aspirate fluid aspiration device as in Claim 65, wherein the bladder is inflatable from a reduced profile along an axis transverse to the support and an inflated profile along the axis.
- 74. (New) A nipple aspirate fluid aspiration device as in Claim 67, wherein the bladder has a maximum thickness in the inflated profile along the axis within the range of from about .2 inches to about 2.0 inches.
- 75. (New) A nipple aspirate fluid aspiration device as in Claim 65, further comprising:

a control unit;

a patient interface unit, carrying the adjustable support; and

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a control line extending between the control unit and the patient interface unit.

- 76. (New) A nipple aspirate fluid aspiration device as in Claim 75, further comprising a closed fluid circulation loop, having a reservoir removably carried by the control unit in communication with the bladder carried by the patient interface unit.
- 77. (New) A nipple aspirate fluid aspiration device as in Claim 76, wherein the bladder comprises at least 3 inflatable lobes.
- 78. (New) A nipple aspirate fluid aspiration device as in Claim 77, comprising at least 6 inflatable lobes.
- 79. (New) A nipple aspirate fluid aspiration device as in Claim 76, further comprising a heat exchange fluid contained within the closed loop.
- 80. (New) A nipple aspirate fluid aspiration device as in Claim 77, wherein each lobe has an inflated width of no more than about 3 inches and an inflated length of no more than about 4 inches.
- 81. (New) A nipple aspirate fluid aspiration device as in Claim 80, wherein each lobe has an inflated width of no more than about 2 inches and an inflated length of no more than about 3 inches.
- 82. (New) A nipple aspirate fluid aspiration device as in Claim 65, wherein the bladder has an inflated thickness of no more than about 1 inch.
- 83. (New) A nipple aspirate fluid aspiration device as in Claim 82, wherein the bladder has an inflated thickness of no more than about 0.5 inches.
- 84. (New) A nipple aspirate fluid aspiration device as in Claim 75, further comprising a heat source in the control unit.
- 85. (New) A nipple aspirate fluid aspiration device as in Claim 76, further comprising a pump in the control unit.
- 86. (New) A nipple aspirate fluid aspiration device as in Claim 85, wherein the fluid circulation loop is positioned such that the pump causes fluid circulation through the loop.
- 87. (New) A nipple aspirate fluid aspiration device as in Claim 65, further comprising a disposable patient interface carried by the adjustable support, for contacting the patient.
- 88. (New) A nipple aspirate fluid aspiration device as in Claim 87, wherein the disposable patient interface comprises a flexible polymeric membrane.

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- 89. (New) A nipple aspirate fluid aspiration device as in Claim 88, wherein the disposable patient interface further comprises a rigid support for maintaining patency under vacuum, attached to the flexible polymeric membrane.
- 90. (New) A nipple aspirate fluid aspiration device as in Claim 89, wherein the rigid support comprises a proximal cap, the proximal cap comprising at least a first retention structure for releasable connection with a complementary second retention structure on a handpiece.
- 91. (New) A nipple aspirate fluid aspiration device as in Claim 90, wherein the first retention structure comprises a recess on the proximal cap.
- 92. (New) A nipple aspirate fluid aspiration device as in Claim 90, wherein the first retention structure comprises a projection on the proximal cap.
- 93. (New) A nipple aspirate fluid aspiration device as in Claim 65, further comprising a central processing unit for controlling the inflatable bladder.
- 94. (New) A nipple aspirate fluid aspiration device as in Claim 75, further comprising a central processing unit for controlling the inflatable bladder.
  - 95. (New) A nipple aspirate fluid aspiration device, comprising:

an adjustable support, defining a concavity, the support comprising a plurality of petals, movable throughout an adjustment range;

at least one inflatable bladder within the concavity; and

a vacuum source in communication with the concavity;

wherein the bladder is inflatable from a reduced profile along an axis transverse to the support and an inflated profile along the axis.

- 96. (New) A nipple aspirate fluid aspiration device as in Claim 95, wherein each petal carries an inflatable bladder.
- 97. (New) A nipple aspirate fluid aspiration device as in Claim 95, further comprising a heat source.
- 98. (New) A nipple aspirate fluid aspiration device as in Claim 97, wherein the heat source is in thermally conductive contact with the bladder.
- 99. (New) A nipple aspirate fluid aspiration device as in Claim 97, further comprising a fluid circulation pathway for circulating a fluid through the bladder.
- 100. (New) A nipple aspirate fluid aspiration device as in Claim 99, wherein the heat source is in thermally conductive contact with the fluid so that the fluid heats the bladder.

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- 101. (New) A nipple aspirate fluid aspiration device as in Claim 99, further comprising at least three inflatable bladders, in fluid communication with the circulation pathway.
- 102. (New) A nipple aspirate fluid aspiration device as in Claim 95, further comprising a control for inflating and deflating the bladder in accordance with a predetermined program.
- 103. (New) A nipple aspirate fluid aspiration device as in Claim 102 wherein the predetermined program comprises alternating inflation and deflation cycles.
- 104. (New) A nipple aspirate fluid aspiration device as in Claim 103 wherein the predetermined program inflates the bladder within the range of from about 2 to about 40 cycles per minute.
- 105. (New) A nipple aspirate fluid aspiration device as in Claim 104 wherein the predetermined program inflates the bladder within the range of from about 3 to about 12 cycles per minute.
- 106. (New) A nipple aspirate fluid aspiration device as in Claim 103 wherein the predetermined program maintains the bladder inflated within the range of from about 4 to about 8 seconds per cycle.
- 107. (New) A nipple aspirate fluid aspiration device as in Claim 95, wherein the bladder has a maximum thickness in the inflated profile along the axis within the range of from about 2 inches to about 2.0 inches.
- 108. (New) A nipple aspirate fluid aspiration device as in Claim 95, further comprising:

a control unit;

a patient interface unit, carrying the adjustable support; and

a control line extending between the control unit and the patient interface unit.

- 109. (New) A nipple aspirate fluid aspiration device as in Claim 108, further comprising a closed fluid circulation loop, having a reservoir removably carried by the control unit in communication with the bladder carried by the patient interface unit.
- 110. (New) A nipple aspirate fluid aspiration device as in Claim 109, wherein the bladder comprises at least 3 inflatable lobes.
- 111. (New) A nipple aspirate fluid aspiration device as in Claim 110, comprising at least 6 inflatable lobes.

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- 112. (New) A nipple aspirate fluid aspiration device as in Claim 109, further comprising a heat exchange fluid contained within the closed loop.
- 113. (New) A nipple aspirate fluid aspiration device as in Claim 110, wherein each lobe has an inflated width of no more than about 3 inches and an inflated length of no more than about 4 inches.
- 114. (New) A nipple aspirate fluid aspiration device as in Claim 113, wherein each lobe has an inflated width of no more than about 2 inches and an inflated length of no more than about 3 inches.
- 115. (New) A nipple aspirate fluid aspiration device as in Claim 95, wherein the bladder has an inflated thickness of no more than about 1 inch.
- 116. (New) A nipple aspirate fluid aspiration device as in Claim 115, wherein the bladder has an inflated thickness of no more than about 0.5 inches.
- 117. (New) A nipple aspirate fluid aspiration device as in Claim 108, further comprising a heat source in the control unit.
- 118. (New) A nipple aspirate fluid aspiration device as in Claim 109, further comprising a pump in the control unit.
- 119. (New) A nipple aspirate fluid aspiration device as in Claim 118, wherein the fluid circulation loop is positioned such that the pump causes fluid circulation through the loop.
- 120. (New) A nipple aspirate fluid aspiration device as in Claim 95, further comprising a disposable patient interface carried by the adjustable support, for contacting the patient.
- 121. (New) A nipple aspirate fluid aspiration device as in Claim 120, wherein the disposable patient interface comprises a flexible polymeric membrane.
- 122. (New) A nipple aspirate fluid aspiration device as in Claim 121, wherein the disposable patient interface further comprises a rigid support for maintaining patency under vacuum, attached to the flexible polymeric membrane.
- 123. (New) A nipple aspirate fluid aspiration device as in Claim 122, wherein the rigid support comprises a proximal cap, having at least a first retention structure for releasable connection with a complementary second retention structure on a handpiece.
- 124. (New) A nipple aspirate fluid aspiration device as in Claim 123, wherein the first retention structure comprises a recess on the proximal cap.

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- 125. (New) A nipple aspirate fluid aspiration device as in Claim 123, wherein the first retention structure comprises a projection on the proximal cap.
- 126. (New) A nipple aspirate fluid aspiration device as in Claim 95, further comprising a central processing unit for controlling the inflatable bladder.
- 127. (New) A nipple aspirate fluid aspiration device as in Claim 108, further comprising a central processing unit for controlling the inflatable bladder.
- 128. (New) A device for obtaining an intraductal fluid sample from a non lactating breast, comprising:

a frame;

at least three supports on the frame, having first sides for facing in the direction of a patient when in use;

a moveable wall positioned in between the supports and the patient when in use;

a disposable patient interface positioned between the movable wall and the patient, for contacting the patient when in use;

wherein the supports are moveable throughout an adjustment range; and

wherein each support has a proximal end in the direction of the frame, and a distal end in the direction of the patient, and the distal ends form an annular distal limit which is moveable between a first, small diameter and a second, large diameter at the limits of the adjustment range.

- 129. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 128, further comprising a control, for controlling the adjustment.
- 130. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 129, wherein the control comprises a rotatable ring.
- 131. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 128, wherein the first diameter is within the range of from about 2.5 inches to about 4.5 inches.
- 132. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 128, wherein the second diameter is within the range of from about 3.5 inches to about 6.5 inches.

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- 133. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 128, wherein the movable wall comprises a wall on an inflatable bladder.
- 134. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 133, comprising an inflatable bladder carried by each of the supports.
- 135. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 128, wherein the disposable patient interface comprises a flexible membrane.
- 136. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 135, wherein the flexible membrane comprises a tubular body having a proximal end with a first diameter and a distal end with a second, larger diameter.
- 137. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 136, further comprising a releasable connector on the proximal end.
- 138. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 135, wherein the flexible membrane comprises a low durometer thermoplastic elastomer.
- 139. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 128, further comprising a heat source in thermal communication with the movable wall.
- 140. (New) A device for obtaining an intraductal fluid sample from a non lactating breast, comprising:

a frame;

at least three supports on the frame, having first sides for facing in the direction of a patient when in use;

a moveable wall positioned in between the supports and the patient when in use; and

a disposable patient interface positioned between the movable wall and the patient, for contacting the patient when in use;

wherein the movable wall comprises a wall on an inflatable bladder.

- 141. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 140, wherein the supports are moveable throughout an adjustment range.
- 142. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 141, further comprising a control, for controlling the adjustment.

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- 143. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 142, wherein the control comprises a rotatable ring.
- 144. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 141, wherein each support has a proximal end in the direction of the frame, and a distal end in the direction of the patient, and the distal ends form an annular distal limit which is moveable between a first, small diameter and a second, large diameter at the limits of the adjustment range.
- 145. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 144, wherein the first diameter is within the range of from about 2.5 inches to about 4.5 inches.
- 146. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 144, wherein the second diameter is within the range of from about 3.5 inches to about 6.5 inches.
- 147. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 140, further comprising an inflatable bladder carried by each of the supports.
- 148. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 140, wherein the disposable patient interface comprises a flexible membrane.
- 149. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 148, wherein the flexible membrane comprises a tubular body having a proximal end with a first diameter and a distal end with a second, larger diameter.
- 150. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 149, further comprising a releasable connector on the proximal end.
- 151. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 148, wherein the flexible membrane comprises a low durometer thermoplastic elastomer.
- 152. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 140, further comprising a heat source in thermal communication with the movable wall.
- 153. (New) A device for obtaining an intraductal fluid sample from a non lactating breast, comprising:

a frame;

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at least three supports on the frame, having first sides for facing in the direction of a patient when in use;

a moveable wall positioned in between the supports and the patient when in use;

a disposable patient interface positioned between the movable wall and the patient, for contacting the patient when in use;

wherein the disposable patient interface comprises a flexible membrane; and wherein the flexible membrane comprises a tubular body having a proximal end with a first diameter and a distal end with a second, larger diameter.

- 154. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 153, wherein the supports are moveable throughout an adjustment range.
- 155. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 154, further comprising a control, for controlling the adjustment.
- 156. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 155, wherein the control comprises a rotatable ring.
- 157. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 154, wherein each support has a proximal end in the direction of the frame, and a distal end in the direction of the patient, and the distal ends form an annular distal limit which is moveable between a first, small diameter and a second, large diameter at the limits of the adjustment range.
- 158. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 157, wherein the first diameter is within the range of from about 2.5 inches to about 4.5 inches.
- 159. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 157, wherein the second diameter is within the range of from about 3.5 inches to about 6.5 inches.
- 160. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 153, wherein the movable wall comprises a wall on an inflatable bladder.
- 161. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 160, further comprising an inflatable bladder carried by each of the supports.

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162. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 153, further comprising a releasable connector on the proximal end.

163. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 153, wherein the flexible membrane comprises a low durometer thermoplastic elastomer.

164. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in claim 153, further comprising a heat source in thermal communication with the movable wall.

165. (New) A device for obtaining an intraductal fluid sample from a non lactating breast, comprising:

a frame;

at least three supports on the frame, having first sides for facing in the direction of a patient when in use, the supports moveable throughout an adjustment range;

a moveable wall positioned in between the supports and the patient when in use;

a disposable patient interface positioned between the movable wall and the patient, for contacting the patient when in use, the patient interface comprising a flexible membrane having a tubular body with a proximal end having a first diameter and a second end having a second, larger diameter, and a releasable connector on the proximal end; and

a control, for controlling the adjustment.

- 166. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 165, wherein the control comprises a rotatable ring.
- 167. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 165, wherein each support has a proximal end in the direction of the frame, and a distal end in the direction of the patient, and the distal ends form an annular distal limit which is moveable between a first, small diameter and a second, large diameter at the limits of the adjustment range.
- 168. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 167, wherein the first diameter is within the range of from about 2.5 inches to about 4.5 inches.

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- 169. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 167, wherein the second diameter is within the range of from about 3.5 inches to about 6.5 inches.
- 170. (New) A device for obtaining an intraductal fluid sample from a non-lactating breast as in Claim 165, wherein the movable wall comprises a wall on an inflatable bladder.
- 171. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 170, comprising an inflatable bladder carried by each of the supports.
- 172. (New) A device for obtaining an intraductal fluid sample from a non lactating breast as in Claim 165, wherein the flexible membrane comprises a low durometer thermoplastic elastomer.
  - 173. (New) A nipple aspirate fluid aspiration device, comprising:
  - an adjustable support, defining a concavity, the support comprising a plurality of petals, movable throughout an adjustment range;
    - at least one inflatable bladder within the concavity;
    - a vacuum source in communication with the concavity;
    - a control unit;
    - a patient interface unit, carrying the adjustable support; and
    - a control line extending between the control unit and the patient interface unit.
- 174. (New) A nipple aspirate fluid aspiration device as in Claim 173, wherein each petal carries an inflatable bladder.
- 175. (New) A nipple aspirate fluid aspiration device as in Claim 173, further comprising a heat source.
- 176. (New) A nipple aspirate fluid aspiration device as in Claim 175, wherein the heat source is in thermally conductive contact with the bladder.
- 177. (New) A nipple aspirate fluid aspiration device as in Claim 175, further comprising a fluid circulation pathway for circulating a fluid through the bladder.
- 178. (New) A nipple aspirate fluid aspiration device as in Claim 177, wherein the heat source is in thermally conductive contact with the fluid so that the fluid heats the bladder.
- 179. (New) A nipple aspirate fluid aspiration device as in Claim 177, further comprising at least three inflatable bladders, in fluid communication with the circulation pathway.

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- 180. (New) A nipple aspirate fluid aspiration device as in Claim 173, wherein the control unit controls inflating and deflating the bladder in accordance with a predetermined program.
- 181. (New) A nipple aspirate fluid aspiration device as in Claim 180, wherein the predetermined program comprises alternating inflation and deflation cycles.
- 182. (New) A nipple aspirate fluid aspiration device as in Claim 181, wherein the predetermined program inflates the bladder within the range of from about 2 to about 40 cycles per minute.
- 183. (New) A nipple aspirate fluid aspiration device as in Claim 182, wherein the predetermined program inflates the bladder within the range of from about 3 to about 12 cycles per minute.
- 184. (New) A nipple aspirate fluid aspiration device as in Claim 181, wherein the predetermined program maintains the bladder inflated within the range of from about 4 to about 8 seconds per cycle.
- 185. (New) A nipple aspirate fluid aspiration device as in Claim 173, wherein the bladder is inflatable from a reduced profile along an axis transverse to the support and an inflated profile along the axis.
- 186. (New) A nipple aspirate fluid aspiration device as in Claim 185, wherein the bladder has a maximum thickness in the inflated profile along the axis within the range of from about .2 inches to about 2.0 inches.
- 187. (New) A nipple aspirate fluid aspiration device as in Claim 173, further comprising a closed fluid circulation loop, having a reservoir removably carried by the control unit in communication with the bladder carried by the patient interface unit.
- 188. (New) A nipple aspirate fluid aspiration device as in Claim 187, wherein the bladder comprises at least 3 inflatable lobes.
- 189. (New) A nipple aspirate fluid aspiration device as in Claim 188, comprising at least 6 inflatable lobes.
- 190. (New) A nipple aspirate fluid aspiration device as in Claim 187, further comprising a heat exchange fluid contained within the closed loop.

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- 191. (New) A nipple aspirate fluid aspiration device as in Claim 188, wherein each lobe has an inflated width of no more than about 3 inches and an inflated length of no more than about 4 inches.
- 192. (New) A nipple aspirate fluid aspiration device as in Claim 191, wherein each lobe has an inflated width of no more than about 2 inches and an inflated length of no more than about 3 inches.
- 193. (New) A nipple aspirate fluid aspiration device as in Claim 173, wherein the bladder has an inflated thickness of no more than about 1 inch.
- 194. (New) A nipple aspirate fluid aspiration device as in Claim 193, wherein the bladder has an inflated thickness of no more than about 0.5 inches.
- 195. (New) A nipple aspirate fluid aspiration device as in Claim 173, further comprising a heat source in the control unit.
- 196. (New) A nipple aspirate fluid aspiration device as in Claim 187, further comprising a pump in the control unit.
- 197. (New) A nipple aspirate fluid aspiration device as in Claim 196, wherein the fluid circulation loop is positioned such that the pump causes fluid circulation through the loop.
- 198. (New) A nipple aspirate fluid aspiration device as in Claim 173, further comprising a disposable patient interface carried by the adjustable support, for contacting the patient.
- 199. (New) A nipple aspirate fluid aspiration device as in Claim 198, wherein the disposable patient interface comprises a flexible polymeric membrane.
- 200. (New) A nipple aspirate fluid aspiration device as in Claim 199, wherein the disposable patient interface further comprises a rigid support for maintaining patency under vacuum, attached to the flexible polymeric membrane.
- 201. (New) A nipple aspirate fluid aspiration device as in Claim 200, wherein the rigid support comprises a proximal cap, wherein the proximal cap comprises at least a first retention structure for releasable connection with a complementary second retention structure on a handpiece.
- 202. (New) A nipple aspirate fluid aspiration device as in Claim 201, wherein the first retention structure comprises a recess on the proximal cap.

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- 203. (New) A nipple aspirate fluid aspiration device as in Claim 201, wherein the first retention structure comprises a projection on the proximal cap.
- 204. (New) A nipple aspirate fluid aspiration device as in Claim 187, further comprising a central processing unit for controlling the inflatable bladder.
- 205. (New) A nipple aspirate fluid aspiration device as in Claim 187, further comprising a central processing unit for controlling the inflatable bladder.
  - 206. (New) A nipple aspirate fluid aspiration device, comprising:

an adjustable support, defining a concavity, the support comprising a plurality of petals, movable throughout an adjustment range;

- at least one inflatable bladder within the concavity;
- a vacuum source in communication with the concavity; and
- a disposable patient interface carried by the adjustable support, for contacting the patient;

wherein the disposable patient interface comprises a flexible polymeric membrane.

- 207. (New) A nipple aspirate fluid aspiration device as in Claim 206, wherein each petal carries an inflatable bladder.
- 208. (New) A nipple aspirate fluid aspiration device as in Claim 206, further comprising a heat source.
- 209. (New) A nipple aspirate fluid aspiration device as in Claim 208, wherein the heat source is in thermally conductive contact with the bladder.
- 210. (New) A nipple aspirate fluid aspiration device as in Claim 208, further comprising a fluid circulation pathway for circulating a fluid through the bladder.
- 211. (New) A nipple aspirate fluid aspiration device as in Claim 210, wherein the heat source is in thermally conductive contact with the fluid so that the fluid heats the bladder.
- 212. (New) A nipple aspirate fluid aspiration device as in Claim 210, further comprising at least three inflatable bladders, in fluid communication with the circulation pathway.
- 213. (New) A nipple aspirate fluid aspiration device as in Claim 206, further comprising a control for inflating and deflating the bladder in accordance with a predetermined program.

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214. (New) A nipple aspirate fluid aspiration device as in Claim 213, wherein the predetermined program comprises alternating inflation and deflation cycles.

- 215. (New) A nipple aspirate fluid aspiration device as in Claim 214, wherein the predetermined program inflates the bladder within the range of from about 2 to about 40 cycles per minute.
- 216. (New) A nipple aspirate fluid aspiration device as in Claim 215, wherein the predetermined program inflates the bladder within the range of from about 3 to about 12 cycles per minute.
- 217. (New) A nipple aspirate fluid aspiration device as in Claim 214, wherein the predetermined program maintains the bladder inflated within the range of from about 4 to about 8 seconds per cycle.
- 218. (New) A nipple aspirate fluid aspiration device as in Claim 206, wherein the bladder is inflatable from a reduced profile along an axis transverse to the support and an inflated profile along the axis.
- 219. (New) A nipple aspirate fluid aspiration device as in Claim 218, wherein the bladder has a maximum thickness in the inflated profile along the axis within the range of from about 2 inches to about 2.0 inches.
- 220. (New) A nipple aspirate fluid aspiration device as in Claim 206, further comprising:

a control unit;

a patient interface unit, carrying the adjustable support; and

a control line extending between the control unit and the patient interface unit.

- 221 (New) A nipple aspirate fluid aspiration device as in Claim 220, further comprising a closed fluid circulation loop, having a reservoir removably carried by the control unit in communication with the bladder carried by the patient interface unit.
- 222. (New) A nipple aspirate fluid aspiration device as in Claim 221, wherein the bladder comprises at least 3 inflatable lobes.
- 223. (New) A nipple aspirate fluid aspiration device as in Claim 222, comprising at least 6 inflatable lobes.
  - 224. (New) A nipple aspirate fluid aspiration device as in Claim 221, further comprising a heat exchange fluid contained within the closed loop.

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- 225. (New) A nipple aspirate fluid aspiration device as in Claim 222, wherein each lobe has an inflated width of no more than about 3 inches and an inflated length of no more than about 4 inches.
- 226. (New) A nipple aspirate fluid aspiration device as in Claim 225, wherein each lobe has an inflated width of no more than about 2 inches and an inflated length of no more than about 3 inches.
- 227. (New) A nipple aspirate fluid aspiration device as in Claim 206, wherein the bladder has an inflated thickness of no more than about 1 inch.
- 228. (New) A nipple aspirate fluid aspiration device as in Claim 227, wherein the bladder has an inflated thickness of no more than about 0.5 inches.
- 229. (New) A nipple aspirate fluid aspiration device as in Claim 220, further comprising a heat source in the control unit.
- 230. (New) A nipple aspirate fluid aspiration device as in Claim 221, further comprising a pump in the control unit.
- 231. (New) A nipple aspirate fluid aspiration device as in Claim 230, wherein the fluid circulation loop is positioned such that the pump causes fluid circulation through the loop.
- 232. (New) A nipple aspirate fluid aspiration device as in Claim 206, wherein the disposable patient interface further comprises a rigid support for maintaining patency under vacuum, attached to the flexible polymeric membrane.
- 233. (New) A nipple aspirate fluid aspiration device as in Claim 206, further comprising a proximal cap on the disposable patient interface, wherein the proximal cap comprises at least a first retention structure for releasable connection with a complementary second retention structure on a handpiece.
- 234. (New) A nipple aspirate fluid aspiration device as in Claim 233, wherein the first retention structure comprises a recess on the proximal cap.
- 235. (New) A nipple aspirate fluid aspiration device as in Claim 233, wherein the first retention structure comprises a projection on the proximal cap.
- 236. (New) A nipple aspirate fluid aspiration device as in Claim 206, further comprising a central processing unit for controlling the inflatable bladder.
- 237. (New) A nipple aspirate fluid aspiration device as in Claim 220, further comprising a central processing unit for controlling the inflatable bladder.

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238. (New) A nipple aspirate fluid aspiration device, comprising:

an adjustable support, defining a concavity, the support comprising a plurality of petals, movable throughout an adjustment range;

at least one inflatable bladder within the concavity;

- a vacuum source in communication with the concavity; and
- a disposable patient interface having a proximal cap, wherein the proximal cap comprises at least a first retention structure for releasable connection with a complementary second retention structure on a handpiece.
- 239. (New) A nipple aspirate fluid aspiration device as in Claim 238, wherein each petal carries an inflatable bladder.
- 240. (New) A nipple aspirate fluid aspiration device as in Claim 238, further comprising a heat source.
- 241. (New) A nipple aspirate fluid aspiration device as in Claim 240, wherein the heat source is in thermally conductive contact with the bladder.
- 242. (New) A nipple aspirate fluid aspiration device as in Claim 240, further comprising a fluid circulation pathway for circulating a fluid through the bladder.
- 243. (New) A nipple aspirate fluid aspiration device as in Claim 242, wherein the heat source is in thermally conductive contact with the fluid so that the fluid heats the bladder.
- 244. (New) A nipple aspirate fluid aspiration device as in Claim 242, further comprising at least three inflatable bladders, in fluid communication with the circulation pathway.
- 245. (New) A nipple aspirate fluid aspiration device as in Claim 238, further comprising a control for inflating and deflating the bladder in accordance with a predetermined program.
- 246. (New) A nipple aspirate fluid aspiration device as in Claim 245, wherein the predetermined program comprises alternating inflation and deflation cycles.
- 247. (New) A nipple aspirate fluid aspiration device as in Claim 246, wherein the predetermined program inflates the bladder within the range of from about 2 to about 40 cycles per minute.

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248. (New) A nipple aspirate fluid aspiration device as in Claim 247, wherein the predetermined program inflates the bladder within the range of from about 3 to about 12 cycles per minute.

- 249. (New) A nipple aspirate fluid aspiration device as in Claim 246, wherein the predetermined program maintains the bladder inflated within the range of from about 4 to about 8 seconds per cycle.
- 250. (New) A nipple aspirate fluid aspiration device as in Claim 238, wherein the bladder is inflatable from a reduced profile along an axis transverse to the support and an inflated profile along the axis.
- 251. (New) A nipple aspirate fluid aspiration device as in Claim 250, wherein the bladder has a maximum thickness in the inflated profile along the axis within the range of from about 2 inches to about 2.0 inches.
- 252. (New) A nipple aspirate fluid aspiration device as in Claim 238, further comprising:

a control unit;

a patient interface unit, carrying the adjustable support; and

a control line extending between the control unit and the patient interface unit.

- 253. (New) A nipple aspirate fluid aspiration device as in Claim 252, further comprising a closed fluid circulation loop, having a reservoir removably carried by the control unit in communication with the bladder carried by the patient interface unit.
- 254. (New) A nipple aspirate fluid aspiration device as in Claim 253, wherein the bladder comprises at least 3 inflatable lobes.
- 255. (New) A nipple aspirate fluid aspiration device as in Claim 254, comprising at least 6 inflatable lobes.
- 256. (New) A nipple aspirate fluid aspiration device as in Claim 253, further comprising a heat exchange fluid contained within the closed loop.
- 257. (New) A nipple aspirate fluid aspiration device as in Claim 254, wherein each lobe has an inflated width of no more than about 3 inches and an inflated length of no more than about 4 inches.

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- 258. (New) A nipple aspirate fluid aspiration device as in Claim 257, wherein each lobe has an inflated width of no more than about 2 inches and an inflated length of no more than about 3 inches.
- 259. (New) A nipple aspirate fluid aspiration device as in Claim 238, wherein the bladder has an inflated thickness of no more than about 1 inch.
- 260. (New) A nipple aspirate fluid aspiration device as in Claim 259, wherein the bladder has an inflated thickness of no more than about 0.5 inches.
- 261. (New) A nipple aspirate fluid aspiration device as in Claim 252, further comprising a heat source in the control unit.
- 262. (New) A nipple aspirate fluid aspiration device as in Claim 253, further comprising a pump in the control unit.
- 263. (New) A nipple aspirate fluid aspiration device as in Claim 262, wherein the fluid circulation loop is positioned such that the pump causes fluid circulation through the loop.
- 264. (New) A nipple aspirate fluid aspiration device as in Claim 238, wherein the disposable patient interface is carried by the adjustable support, for contacting the patient.
- 265. (New) A nipple aspirate fluid aspiration device as in Claim 264, wherein the disposable patient interface comprises a flexible polymeric membrane.
- 266. (New) A nipple aspirate fluid aspiration device as in Claim 238, wherein the first retention structure comprises a recess on the proximal cap.
- 267. (New) A nipple aspirate fluid aspiration device as in Claim 238, wherein the first retention structure comprises a projection on the proximal cap.
- 268. (New) A nipple aspirate fluid aspiration device as in Claim 238, further comprising a central processing unit for controlling the inflatable bladder.
- 269. (New) A nipple aspirate fluid aspiration device as in Claim 252, further comprising a central processing unit for controlling the inflatable bladder.